

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 6-7 and 22-23 have been withdrawn from further consideration as being drawn to a non-elected species; the title of the invention has been objected to as not being descriptive; the specification has been objected to based upon the Examiner's conclusion that the subject matter of Claims 12, 28, 30 and 31 are not fully disclosed; Claims 12, 28, 30 and 31 have been objected to under 35 U.S.C. § 112, first paragraph, as being directed to subject matter which is not described in the specification in full, clear, concise and exact terms; Claims 17 and 19 have been rejected under 35 U.S.C. § 112, second paragraph, as being vague and indefinite; and Claims 1-5, 8-21 and 24-31 have been rejected under 35 U.S.C. § 103 as being unpatentable over the admitted prior art as discussed in Applicants' Background of the Invention in view of Jiang. Claims 6, 7, 22 and 23 have now been canceled, without prejudice, and thus, Claims 1-5, 8-21 and 24-31 remain active.

Considering first then the Examiner's objection to the title, it is to be noted that such has now been revised for closer compliance with U.S. patent practice and procedure.

Responsive to the objection to the specification, the language of Claims 12 and 28 have now been revised to no longer refer to the "longitudinal direction" length referred to by the Examiner. Insofar as a length portion of a terminal pad would be readily understandable to one of ordinary skill in the art in interpreting the scope of Claims 12 and 28, it is submitted that such claims comply with U.S. patent practice and procedure. As for the steps indicated in Claims 30 and 31, the Examiner has noted that the specification has not explained these steps in any further detail other than that stipulated in the claims. However, it is to be noted that a detailed discussion of the steps is set forth at page 32, line 10 through page 33, line 6

and also at page 49, line 12 through page 50, line 7. Accordingly, it is submitted that these portions of the specification fully comply with 37 C.F.R. § 1.71.

Considering next then the rejection of Claims 12, 28, 30 and 31 under 35 U.S.C. § 112, first paragraph, it is submitted that such claims comply with 35 U.S.C. § 112 based upon the explanation set forth hereinabove with regard to the objection to the specification and in light of the amendments made to Claims 12 and 28.

Next considering then the rejection of Claims 17 and 19 under 35 U.S.C. § 112, second paragraph, as being vague and indefinite, it is to be noted that appropriate amendments have now been made to Claims 17 and 19 for compliance with 35 U.S.C. § 112. In addition, a review of the specification and claims has been conducted where further revisions were necessary for compliance with U.S. patent practice and procedure.

Lastly considering then the rejection of Claims 1-5, 8-21 and 24-31 under 35 U.S.C. § 103 as being unpatentable over the admitted prior art in view of Jiang, it is to be noted that the present application, as discussed at pages 16 and 17, explains that the reflowed solder 17 is formed by laser reflowing of a solder ball 15 supplied at an exposed corner or juncture between the second surface of the flexure 12 and the element formed surface 13e of the slider body 13a as illustrated, for example, in Figure 3. By means of the solder connection of the terminal pads of the magnetic head slider with the connection pads of the lead conductor member, the magnetic write head element and the magnetic read head element of the magnetic head slider are electrically connected with the trace conductors 14a of the lead conductor member 14. As can also be appreciated from a review of Figure 3, for example, the solder ball 15 at such corner or juncture is in an exposed position and is not covered by any other element. This permits direct application of the laser for reflowing of the solder ball so as to provide the advantages described in the present application. By comparison, neither any of the prior art references discussed in Applicants' Background of the Invention nor Jiang

teach or disclose the above-noted feature, which are now claimed in the independent claims. For example, Claim 1 claims providing a magnetic head slider and a suspension so as to form an exposed corner or juncture therebetween and performing melt-solder connections at the corner or juncture by using solder balls exposed at the corner or junction with cores that will not melt even at a solder melting temperature and connecting the magnetic head slider by performing the molten solder by laser reflowing applied to the exposed solder balls. To the contrary, Jiang specifically requires a covering of the solder balls cited by the Examiner and embedding the same in a ball grid array (BGA) 30, as mentioned in the Abstract of the Disclosure and as discussed at column 4, line 66 - column 5, line 27. Furthermore, as discussed at column 8, lines 36-40, by utilizing the ball grid array 30 in Jiang, the conductive core and outer layer (i.e., copper core and silver outer layer) have a much lower electrical resistance. As a result, the computing speed of the invention is greater than when interconnecting conventional solder balls. By comparison, since the advantages of the present invention are obtained by forming molten-solder connections at the exposed corner or juncture of the structure mentioned in Claim 1 followed by performing molten-soldering by laser reflowing applied to the exposed solder balls at the corner or juncture, the advantages of the present invention are obtained. Insofar as a modification of Jiang to meet Applicants' claimed limitations would destroy Jiang for its intended function, the modification thereof would not be obvious to one of ordinary skill in the art, nor would any such modification of the admitted prior art result in Applicants' claimed invention.

In view of the foregoing, it is submitted that each of independent Claims 1, 15 and 29 patentably define over the above-noted prior art as well as the remaining references of record.

Each of the claims dependent upon independent Claims 1, 15 and 29 also contain limitations having no corresponding teaching or disclosure in the prior art. It is therefore

submitted that such dependent claims also merit indication of allowability with the same being hereby earnestly solicited.

In view of the foregoing, an early and favorable Office Action is believed to be in order and the same is hereby respectfully requested.

Respectfully submitted,

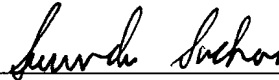
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